

I Claim:

1. A sunglass lens, comprising:

a multilayer dielectric mirror for reducing glare and overall light transmission, said dielectric mirror comprising a plurality of angularly displaced thin film layers;

5 a first layer of ophthalmic plastic colorized with color discriminating grey tint;

a second layer of ophthalmic plastic colorized with said color discriminating grey tint;

a polarizing layer encapsulated between said first and second ophthalmic plastic layers;

whereby said layers are arranged to provide a balanced light transmission profile in which substantially 100% of UV-A & B light is blocked to at least 400nm, and average blue light transmission of said lens is less than 0.4%.

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2. The sunglass lens according to claim 1, wherein said first and second layers are CR-39™ plastic.

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3. The sunglass lens according to claim 1, wherein said first and second layers are polycarbonate.

4. The sunglass lens according to claim 1, wherein said dielectric mirror further comprises a multi-layered dielectric mirror.

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5. The sunglass lens according to claim 1, wherein said multi-layered dielectric mirror further comprises at least six thin film layers vacuum deposited atop said first layer of plastic for further reducing light transmission and glare.

6. The sunglass lens according to claim 1, wherein said polarizing filter layer is molecularly bonded between said first and second ophthalmic plastic layers to avoid haze and delamination.

7. A sunglass lens, comprising:

5 a first layer hydrophobic overcoat for protection from seawater and smudging;

a second layer dielectric mirror for reducing light transmission and glare, said dielectric mirror comprising a plurality of angularly displaced thin film layers;

a third layer color discriminating grey-tinted ophthalmic plastic material;

a fifth layer color discriminating grey-tinted ophthalmic plastic material;

10 a fourth polarizing layer molecularly bonded to said third and fifth plastic layers and sandwiched

there between to avoid haze and delamination;

whereby said layers are arranged to provide a balanced light transmission profile optimum for use on the water in which substantially 100% of UV-A & B light is blocked and at least 99% of blue light is blocked at up to 490 nm.

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8. The sunglass lens according to claim 7, wherein said dielectric mirror further comprises a multi-layered dielectric mirror.

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9. The sunglass lens according to claim 8, wherein said multi-layered dielectric mirror further comprises at least six thin film layers vacuum deposited atop said third layer of ophthalmic plastic for further reducing light transmission and glare.

10. The sunglass lens according to claim 9, wherein said polarizing filter layer is molecularly bonded between said first and second ophthalmic plastic layers to avoid haze and delamination.

11. The sunglass lens according to claim 10, wherein said third and fifth
5 ophthalmic plastic layers are CR-39™ plastic.

12. The sunglass lens according to claim 10, wherein said third and fifth ophthalmic layers are polycarbonate.

10 13. The sunglass lens according to claim 11, wherein said third and fifth ophthalmic plastic layers are colorized with a color discriminating grey-tinted ophthalmic plastic material that blocks blue light transmission of said lens to at least 99% of blue light at up to 490 nm..

14. A sunglass lens, comprising:

15 a first layer hydrophobic overcoat for protection from seawater and smudging;
a second layer dielectric mirror for further reducing light transmission and enhancing UV
obstruction;

a third layer color-discriminating grey-tinted ophthalmic CR-39™ plastic;

a fourth polarizing layer;

20 a fifth layer color-discriminating grey-tinted ophthalmic CR-39™ plastic;

whereby said layers are arranged to provide a balanced light transmission profile optimum for use on the water in which substantially 100% of UV-A & B light is blocked and at least 99% of blue light is blocked at up to 490 nm.

5 15. The sunglass lens according to claim 14, wherein said first and second layers are CR-39™ plastic.

16. The sunglass lens according to claim 15, wherein said first and second layers are polycarbonate.

10 17. The sunglass lens according to claim 16, wherein said second layer dielectric mirror further comprises a multi-layered dielectric mirror.

15 18. The sunglass lens according to claim 17, wherein said second layer multi-layered dielectric mirror further comprises at least six thin film layers vacuum deposited atop said third layer for further reducing light transmission and glare.

19. The sunglass lens according to claim 18, wherein said fourth polarizing layer is molecularly bonded between said third and fifth CR-39™ lenses to avoid haze and delamination.

20 20. The sunglass lens according to claim 14, wherein said third and fifth ophthalmic plastic layers colorized with a color discriminating grey tint limits average blue light transmission of said lens to less than 7%.